

BIBLIOGRAPHICAL NOTICE.

Life and Letters of Sir Joseph Prestwich, M.A., D.C.L., F.R.S., &c.
Written and Edited by his Wife. With 12 Portraits and 16 other
Illustrations. 8vo, 444 pages. Blackwood and Sons, Edinburgh
and London. 1899.

JOSEPH PRESTWICH, born at Clapham, 12th March, 1812 (died at Shoreham, Kent, 23rd June, 1896), was of good descent and parentage, had good natural abilities, and was brought up in an affectionate family circle, with the discipline of a well-directed home and early schooling. Hence he was fairly well trained to appreciate all opportunities of observing people and things, and gaining useful experience in whatever line of life he had to follow. Part of his school-time was passed in France, pleasantly and with great advantage to him subsequently, for he was as much at home with French circles as with his English friends when Science had claimed him as a devotee. As a youth in London he diligently followed his college studies; and the leisure hours of his young days were fully occupied with systematic reading and with amateur work in physics and chemistry.

His father's business soon engaged his time and energies, both at the office in Mark Lane and in travelling all over the kingdom among customers in the spirit-and-wine trade. Roadside diggings, gravel-pits, and other excavations, also wells and springs, had always excited his curiosity. By 1830 he had got together some fossils and minerals, and formed a scrap-book of geological pictures, sections, and quotations; and when the family were staying at Boulogne he geologized in the district, and took his young brother to see some quarries there. Whilst at Broseley, in Shropshire, soon afterwards, his attention was attracted to the coal-works of Coalbrookdale; and at once he applied himself to understand and make plain to others the facts and conditions of the existence and origin of this peculiar and valuable district. His bright intelligence and wide grasp of mind enabled him not only to observe, but to generalize on the subjects that occupied his thoughts. Hence the broad fields of his research and the highly useful results that came of his labours.

The Geological Society of London published his memoir in full, with a good map and several plates of sections and fossils of the Coal-measures of Coalbrookdale, and in 1849 awarded to the author their *Wollaston Medal*, for this and some subsequent memoirs on the Tertiary Districts of London and Hampshire. The above-mentioned early work on the Coal-measures was the basis of his further study of that important group of strata, and ultimately culminated in his nationally important Reports (Royal Coal Commission, 1866-1871) —(1) "On the Somerset and Gloucester Coal-field," and (2) "On the probability of finding Coal under the newer Formations in the South of England."

His long, we may say lifelong, study of the English and French

Tertiaries resulted in a complete knowledge of their natural history and structure, freely communicated to the world, and useful in both scientific and economic aspects. Among other results he recognized in detail their capability of collecting and storing rain-water and of yielding water-supplies at different localities. Hence his personal value as one of the Royal Commissioners on the supply of water to the Metropolis (1866-1869) and the importance of his remarks on springs and wells in his Presidential Address to the Geological Society in 1872, and his papers on the Oxford Water-supply in 1876. He had long been F.R.S., F.G.S., and F.C.S.

The Quaternary deposits necessarily had his attention at the same time with the Tertiary and other strata on which they lie, and enabled him to describe with precision the successive stages of denudation that gave origin to the valleys in North-western France and in the South and East of England. Many of his memoirs elucidate different aspects of this subject. Some gravel-beds yielding stoue implements of Early Man, and various cave-deposits containing remains of prehistoric people, and relics of animals now extinct or limited to other climes, were carefully studied by him. In these researches he was specially associated with the late Dr. Hugh Falconer, one of whose nieces Prestwich married in 1870. This talented and amiable lady, after twenty-six years of devoted companionship in happy domestic life and useful scientific labours, survived him until August 31st, 1899. The widow's pen, indeed, has given us the Biography under notice; and her well-sustained energy collected the numerous letters to or from eminent men, often dealing clearly with controverted subjects, and illustrating his wonderful scientific activity, his charming sociability, and the lifelong friendships in a very wide circle, at home and abroad, around the now lamented friend and husband.

His happy marriage in 1870 made an opportunity for an excursion on the continent, longer than usual and brightened with the companionship of his sympathetic bride, whose account of this visit to Paris and Naples is given in Chapter viii. in her usual lively and charming style. After forty years of City-life he retired from business in 1872. In eighty books, memoirs, and lesser papers he had published the results of observations made, mostly alone, but sometimes in company with geological friends, in his short business visits and occasional holiday (Easter) excursions. This useful application of scattered leisure hours was as fertile in geology as the whole lifetime of some others. His intention to utilize a more continuous leisure time was only partially realized at Aix, the Boulonnais, and elsewhere abroad; at Weymouth, Dorchester, Lulworth, and Portland; and at Settle, Ingleborough, &c. in Yorkshire. After the Report on Brixham Cave he finished his great paper on Deep-sea Temperature and a memoir "On the Geological Conditions affecting the Construction of a Tunnel between England and France." In respect of this the Telford Gold Medal and Premium were awarded to the author.

To the building of his new house (Darent-Hulme) on a lovely hill in Kent, and the planning and planting its grounds, he had devoted much of his scanty leisure time in 1868; its well-remembered hospitable rooms bore inside and out typical characteristics of French and English materials in the building-stones and marbles, and the decorations were sculptured fossils and artistic paintings of palæontology.

In 1874 Prestwich was invited to take the Professorship of Geology at Oxford—an appointment honourable both to him and the University. Everything combined to render Oxford, its society and its surroundings, pleasant to the new-comers; and the College work was a pleasure to the geologist. The holidays led the Professor and his wife to South Wales, Scotland, North and South England, the Channel Islands, and elsewhere—to scenes both old and new.

All subserved, however, to the continuance of his geological studies, and particularly to the writing of his grand text-book of 'Geology, Chemical, Physical, and Stratigraphical,' vol. i. 1886, and vol. ii. 1888. This consists for the most part of complete philosophical essays on its several component parts or subjects, with clear scientific explanation of the details required by teacher and amateur. The University had made him M.A., and now conferred the degree of D.C.L. He was Honorary Member and Correspondent of at least nineteen scientific societies, British and foreign.

As before mentioned, Professor Prestwich (knighted in 1895) had warmly taken up the subject of early man and his implements of stone. Some of the latest and most interesting of these he collected, with the help of Mr. Benjamin Harrison, of Ightham, on the Chalk plateau overlooking that village in Kent. Sir Joseph Prestwich has left to the British Museum his collection of these old, brown, and, at first sight, anomalous flint tools, dressed by chipping on the edges into some seven or eight definite patterns—different from the leaf-shaped and spear-head so-called palæolithic kinds, produced by general chipping on surface and edge.

Another subject, his notes on which he had lately brought to more mature consideration, was the submergence in Quaternary times of South-western Europe and the Northern coasts of the Mediterranean, succeeded by an emergence and producing diluvial results, which may have originated the tradition of a great deluge.

Lady Prestwich's complete and elegant biography is supplemented by Sir A. Geikie's admirable summary of Sir Joseph's geological work and opinions, and, indeed, comprises a lucid account of much of the progress of Geology during the lifetime of our lamented friend. We borrow Sir Archibald's well-considered words:—"While his writings will perpetuate his scientific achievements, it should be placed on record that it was not these achievements alone which gave Joseph Prestwich his pre-eminence among his contemporaries, but that he owed this position in a large measure to the integrity and charm of his character."